Self-contained material mixing apparatus.

Patent number:	EP0242956
Publication date:	1987-10-28
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Classification:	
- international:	A61M5/28; A61M5/315; A61M5/00
- european:	A61M5/315M
Application number:	EP19870301671 19870225
Priority number(s):	US19860833049 19860226

Also published as:

JP62247829 (A)
FI870833 (A)

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CH445721
more >>

Abstract of **EP0242956**

A self-contained material mixing apparatus (12) is disclosed that is particularly useful for mixing two substances separately contained in the apparatus (12) until an actuator is moved within the apparatus (12) to cause one of the substances to be brought into contact with the other substance. The apparatus (12) may be embodied as a syringe having a piston (16) therein separating two compartments (18, 19) within the syringe body (14). The piston (16) causes an incompressible substance in the rearward compartment (19) to pass to the forward compartment (18) when the volume of the rearward compartment (19) is reduced, but precludes passage of substances in the forward compartment (18) to the rearward compartment (19). The substances to be ultimately mixed together are separately placed in the compartments (18, 19), which substances can be, for example, a drug and a diluent (one of which is preferably in liquid form). For mixing of the substances, the piston (16) is moved rearwardly in the syringe (12) and this results in incompressible material in the rearward compartment (19) being forced to the fron compartment (18) through the one-way valving provided by the piston (16). After mixing of the substances in the forward compartment (18), the material is discharged from the syringe (12) to a patient by moving the piston (16) forwardly in the syringe (12) to expel the mixture from the syringe (12) through an outlet nozzle located at the front of the syringe (12).

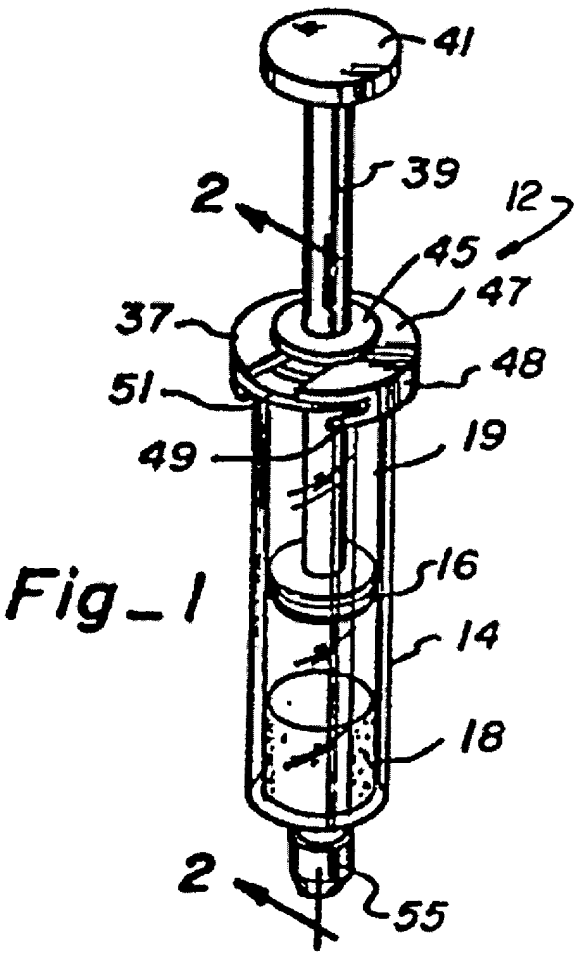

Fig_1

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